

In THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First Named Inventor:)
LEE, Hee-Young) Group Art Unit: 3775
Application No.: 10/519,442) Examiner: WAGGLE, JR, Larry
Filed: December 20, 2005)
For: FACIAL BONE CONTOURING DEVICE)
USING HOLLOWED RASP PROVIDED ...)

APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits this Appeal Brief to the Board of Patent Appeals and Interferences to appeal the rejection of claims 1-5 and 7 in the final Office action dated December 28, 2009. Enclosed are:

- (i) **Real Party in Interest**
- (ii) **Related Appeals and Interferences**
- (iii) **Status of Claims**
- (iv) **Status of Amendments**
- (v) **Summary of Claimed Subject Matter**
- (vi) **Grounds of Rejection to be Reviewed on Appeal**
- (vii) **Arguments**
- (viii) **Claims Appendix**
- (ix) **Evidence Appendix**
- (x) **Related Proceedings Appendix**

The director is hereby authorized to charge any fee deficiencies or credit any overpayments in connection with the submission of this amendment to Deposit Account No. 50-4294 with reference to Attorney Docket No. JU-32128.

Date: October 26, 2010

/Jason Y. Pahng/

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(i) Real Party in Interest

Hee-Young LEE, the inventor of the present application, is the real party in interest.

(ii) Related Appeals and Interferences

Applicant asserts that no other appeals or interferences are known to the Applicant, the Applicant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

(iii) Status of Claims

Claims 1-5 and 7 are pending in the application. Claims 1-7 were originally presented in the application on December 29, 2004. Claim 6 was canceled on November 1, 2007 without prejudice. Claims 1-5 and 7 are finally rejected in the final Office action dated December 28, 2009. The rejection of claims 1-5 and 7 are appealed. The pending claims are shown in the attached Claims Appendix.

(iv) Status of Amendments

The amendments to the claims submitted on October 11, 2010 were entered. The objection to claim 5 was withdrawn in the Advisory Action in view of the amendment submitted on October 11, 2010.

The amendments to the claims and drawings submitted on September 1, 2010 were entered. The objection to claim 1 and Figure 1 were withdrawn in the Advisory Action dated September 16, 2010 in view of the amendment submitted on September 1, 2010.

(v) Summary of Claimed Subject Matter

There is only one independent claim currently pending.

Claim 1 – independent

Claim 1 recites a facial bone contouring device comprising a rasp including a rod, and a cutter, a saline solution feeding passage and a bone fragment exhausting passage formed in the cutter. See [0042] and Figure 1.

As claimed, the device includes a powered surgical handpiece connected to the rasp for providing linear reciprocating motion to the rasp. See [0030] and Figure 1.

As claimed, the device includes a saline solution feeding unit for feeding saline solution to the saline solution feeding passage of the rasp. See [0043], [0045], and Figure 1.

As claimed, the device includes a suction unit for sucking the cut bone fragments from the rasp via the bone fragment exhausting passage and then exhausting the cut bone fragments to the outside. See [0043] and Figure 1.

As claimed, the device includes a protector, formed to have a cylindrical shape, configured to accept and surround the entire surface of the rod and a part of the cutter of the rasp, wherein the protector is configured to be inserted with a trocar. See [0052] and Figure 4.

As claimed, bone cutting is performed under the condition that the saline solution is fed into the rasp, and cut bone fragments are exhausted to the outside together with the saline solution, so that the bone cutting is continuously performed. See [0047] and Figure 1.

As claimed, the protector is configured to be separated from the rasp, to accept the trocar, to be delivered to a bone cutting site, to release the trocar, and to accept the rasp in the original place such that the rasp is disposed at the bone cutting site via a minimum incision. See [0052] and Figure 4.

As claimed, a plurality of non-plugging holes are formed through a cutting plane and between cutting blades formed at a lower portion of the cutter so as to exhaust cut bone fragments, wherein a cavity is formed in the cutter connected to the plurality of non-plugging holes, and wherein the cavity is connected to the bone fragment exhausting

passage of the rasp. See [0034] and Figure 2.

(vi) Grounds of Rejection to be Reviewed

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schechter et al. (US 5,643,304).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schechter et al. (US 5,643,304) in view of Dinger et al. (US 2001/0037114) in further view of Willard et al. (US 5,419,774).

(vii) Arguments

A. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schechter et al. (US 5,643,304).

Applicant believes the above rejection is in error.

Claim 1 recites that “wherein a plurality of non-plugging holes are formed through a cutting plane and between cutting blades formed at a lower portion of the cutter so as to exhaust cut bone fragments, wherein a cavity is formed in the cutter connected to the plurality of non-plugging holes, and wherein the cavity is connected to the bone fragment exhausting passage of the rasp.”

Schechter discloses that a “rasp cutter 106 is integral with or fixed to an irrigation tube 108” in column 11. Schechter has a cavity in the cutter 106. Schechter also discloses a plurality of holes (109) formed through a cutting plane and between cutting blades in Figure 4. However, there are no bone fragments in Schechter’s cavity. Schechter’s cavity provides saline solution. See Figure 3. The bone fragments never enter the cutter in Schechter. Therefore, while Schechter discloses that “a cavity is formed in the cutter,” Schechter does not disclose that “the cavity is connected to the bone fragment exhausting passage of the rasp” because Schechter’s cavity is explicitly connected to the saline solution providing tube (108) in order to provide the saline solution.

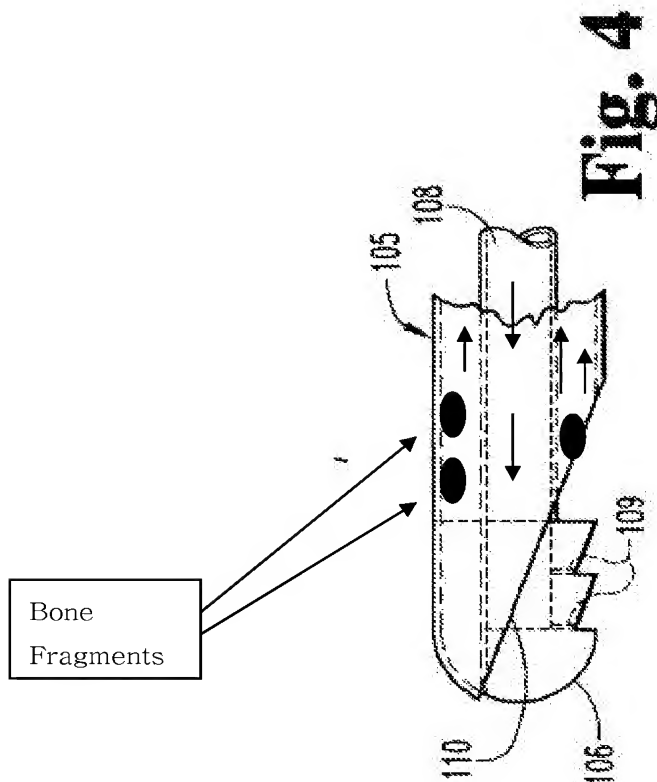
In fact, the final Office action states that “Schechter et al. disclose the claimed invention except for ... the bone fragment exhausting passage formed in the rod of the cutter” in page 6. Applicant agrees that Schechter fails to disclose a bone fragment exhausting passage formed in the rod of the cutter.

However, Applicant does not agree that the defect in Schechter would be cured by a person having ordinary skill in the art without the use of a secondary reference for the following two reasons.

Reason A1

Regarding claim 1, the final Office action states that “It would have been obvious to a person having ordinary skill in that art at the time of the invention to construct the invention of Schechter et al. with both the saline solution feeding passage and the bone fragment exhausting passage formed in the rod of the cutter in order to minimize the overall size of the device to accommodate for a small incision used with percutaneous surgery, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893)” in page 6 of the final Office action.

The Schechter device has a problem that the entire thickness of the device needs to be at least greater than twice the size of the bone fragments because of the bone fragments passing through outside of the cutter. See Schechter’s Figure 4 (illustration added) below:



Applicant succeeded in reducing the size of the device by passing the bone fragments in the cutter which allows the device to be greater than at least the size of the bone fragments instead of twice the size of the bone fragments. Please see [0047] of Applicant's specification which recites that "the facial bone contouring device allows an incision to be minimized." Applicant's invention has the great advantage of reducing the size of the incision which the device of Schechter cannot do.

The reason provided by the final Office action for rejecting claim 1 is appears to be from hindsight. In fact, the reason described in the final Office action to modify Schechter (which we do not agree can be modified in such manner) in order to entirely come up with a feature, instead of combining two features, appears to be based on the motivation suggested in the specification of Applicant's present application as described above.

Therefore, we believe that it would have not been obvious to a person having ordinary skill in the art to cure the defect in Schechter by entirely coming up with the claimed feature by hindsight.

Reason A2

Regarding claim 1, Applicant believes that there appears to be an error in the final Office action which states in page 6 that "It would have been obvious to a person having ordinary skill in that art at the time of the invention to construct the invention of Schechter et al. with both the saline solution feeding passage and the bone fragment exhausting passage formed in the rod of the cutter in order to minimize the overall size of the device to accommodate for a small incision used with percutaneous surgery, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U.S. 164 (1893)."

Unlike the allegation above, there is nothing in claim 1 which recites that "both the saline solution feeding passage and the bone fragment exhausting passage formed **in the** rod of the cutter" (emphasis added). Claim 1 recites that "a cavity is formed in the cutter" and that "the cavity is connected to the bone fragment exhausting passage of the rasp."

Therefore, when the above error is corrected, the final Office action is in effect stating that “It would have been obvious to a person having ordinary skill in that art at the time of the invention to construct the invention of Schechter et al. with ~~both the saline-solution feeding passage and~~ the bone fragment exhausting passage formed in the rod of the cutter in order to minimize the overall size of the device to accommodate for a small incision used with percutaneous surgery, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U.S. 164 (1893).”

We respectfully submit that the above case law is not properly applied. Regardless of the case law, however, we believe that it would have not been obvious to a person having ordinary skill in the art to cure the defect in Schechter by entirely coming up with the claimed feature.

Claims 2-4

With regard to claims 2-4, Applicant believes that claims 2-4 would be allowable at least based on the limitations included in claim 1.

B. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schechter et al. (US 5,643,304) in view of Dinger et al. (US 2001/0037114) in further view of Willard et al. (US 5,419,774).

With regard to claim 7, Applicant believes that claim 7 would be in condition for allowance at least based on the limitations included in claim 1.

Respectively submitted,

Date: October 26, 2010

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(viii) Claims Appendix

1. A facial bone contouring device, comprising:
 - a rasp including a rod, and a cutter, a saline solution feeding passage and a bone fragment exhausting passage formed in the cutter;
 - a powered surgical handpiece connected to the rasp for providing linear reciprocating motion to the rasp;
 - a saline solution feeding unit for feeding saline solution to the saline solution feeding passage of the rasp;
 - a suction unit for sucking the cut bone fragments from the rasp via the bone fragment exhausting passage and then exhausting the cut bone fragments to the outside; and
 - a protector, formed to have a cylindrical shape, configured to accept and surround the entire surface of the rod and a part of the cutter of the rasp, wherein the protector is configured to be inserted with a trocar,

wherein bone cutting is performed under the condition that the saline solution is fed into the rasp, and cut bone fragments are exhausted to the outside together with the saline solution, so that the bone cutting is continuously performed,

wherein the protector is configured to be separated from the rasp, to accept the trocar, to be delivered to a bone cutting site, to release the trocar, and to accept the rasp in the original place such that the rasp is disposed at the bone cutting site via a minimum incision,

wherein a plurality of non-plugging holes are formed through a cutting plane and between cutting blades formed at a lower portion of the cutter so as to exhaust cut bone fragments, wherein a cavity is formed in the cutter connected to the plurality of non-plugging holes, and wherein the cavity is connected to the bone fragment exhausting passage of the rasp.

2. The facial bone contouring device as set forth in claim 1, wherein a bone fragment collector is connected to the suction unit.

3. The facial bone contouring device as set forth in claim 1, wherein the rasp further includes a connector formed on one end of the rod having a cylindrical shape and connected to an adaptor of the powered surgical handpiece, wherein the saline solution feeding passage and the bone fragment exhausting passage formed in the cutter are extended to the outside of the cutter.

4. The facial bone contouring device as set forth in claim 3, wherein the saline solution feeding passage and the bone fragment exhausting passage are formed in the rod.

5. The facial bone contouring device as set forth in claim 1, wherein the saline solution feeding passage is formed in the rod, and the bone fragment exhausting passage is formed by connecting the cavity in the cutter to an external

connection jack protruding from the cutter.

6. (Canceled)

7. The facial bone contouring device as set forth in claim 1, wherein a bending portion is formed at a designated portion of the rod, and wherein the protector has a double tube structure so that the saline solution feeding passage is formed between two tubes, and is bent at a designated angle.

(ix) Evidence Appendix

None.

(x) Related Proceedings Appendix

None.